REMARKS

Applicants have amended claims 1, 3, 5, 7-10, 12-15, 22-34, and 42, and have cancelled claims 2-26, 32-33, 40-41, and 48-49, during prosecution of this patent application. Applicants are not conceding in this patent application that the subject matter encompassed by said amended and cancelled claims are not patentable over the art cited by the Examiner, since the claim amendments and cancellations are only for facilitating expeditious prosecution of this patent application. Applicants respectfully reserve the right to pursue the subject matter encompassed by said amended and cancelled claims, and to pursue other claims, in one or more continuations and/or divisional patent applications.

Claim 1 is amended herein to include the limitations of claim 33. Therefore, the amended claim 1 is the same claim as claim 33 which is cancelled herein.

Claim 34 is amended herein to include the limitations of claim 41. Therefore, the amended claim 34 is the same claim as claim 41 which is cancelled herein.

Claim 42 is amended herein to include the limitations of claim 49. Therefore, the amended claim 42 is the same claim as claim 49 which is cancelled herein.

Please cancel claims 32-33, 40-41, and 48-49. Please amend claims 1, 34, and 42.

The Examiner rejected claims 1 and 27-49 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ishibashi et al. US Publication No.: 7,099,846 B1 (hereinafter Ishibashi) and in view of Sudia et al. US Patent No.: 5,995,625 (hereinafter Sudia).

Applicants respectfully traverse the § 103 rejections with the following arguments.

35 U.S.C. § 103(a): Claims 1 and 27-49

The Examiner rejected claims 1 and 27-49 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ishibashi et al. US Publication No.: 7,099,846 B1 (hereinafter Ishibashi) and in view of Sudia et al. US Patent No.: 5,995,625 (hereinafter Sudia).

Since claims 32-33, 40-41, and 48-49, the rejection of claims 32-33, 40-41, and 48-49 under 35 U.S.C. § 103(a) is moot.

Applicants respectfully contend that claims 1, 34, and 42 are not unpatentable over Ishibashi and in view of Sudia, because Ishibashi and in view of Sudia does not teach or suggest each and every feature of claims 1, 34, and 42.

For example, Ishibashi and in view of Sudia does not teach or suggest the feature: "iteratively processing a unique condition digest of the one or more condition digests in each iteration of a loop for a sufficient number of iterations to process all of said condition digests, said processing in each iteration comprising concatenating the reference digest with the unique condition digest of the iteration to generate a concatenand and hashing the concatenand to generate a hashed concatenand that serves as the reference digest for the next iteration if the next iteration is performed, each unique condition digest being a different condition digest in each iteration of the loop, the regenerated reference digest of the last iteration of the loop being a last digest ..., wherein the one or more conditions is a plurality of conditions".

The Examiner relies on Sudia as allegedly disclosing the preceding feature of claims 1, 34, and 42. In response, Applicants next explains how the iterative process recited in the preceding feature of claims 1, 34, and 42 is distinguished from Sudia, using simplified symbolic notation.

Let N denote the number of conditions (claimed to be at least 2). Then N also denotes the number of condition digests as well as the number of iterations (as claimed).

Let C_1, C_2, ... C_N denote condition digest 1, condition digest 2, ..., condition digest N.

Let R_1, R_2, ... R_N, R_{N+1} denote reference digest 1, reference digest 2, ..., reference digest N, reference digest N+1, where R_{N+1} is the claimed "last digest".

Let + represent the concatenation operator;

Let H represent a hash function.

C_1, C_2, ... C_N, R_1 are input to the iterative process (as claimed), and R_2, ... R_N, R_{N+1} are computed in successive iterations of the iterative process (as claimed).

Then the iterative process in the preceding feature of claims 1, 34, and 42 is as follows:

$$R_2 = H(R_1 + C_1);$$

$$R_3 = H(R_2 + C_2);$$

$$\vdots$$

$$R_{N+1} = H(R_N + C_N).$$

Thus, the hashed concatenand $R_{n+1} = H(R_n + C_n)$ computed in iteration n becomes the reference digest R_{n+1} for the next iteration n+1 (n = 1, 2, ..., N) as claimed, which is not disclosed in Sudia

In contrast, the analogous process in Sudia is depicted in Sudia, FIG. 1 such that:

R_1 = Digest of Conditions 14;

C_1 = Digest of Acceptance Phrase 20;

$$\vdots$$

C_N = Digest of Other Data 26;

H = Combine 28 (see Sudia, col. 5, line 66 stating combine function 28 could be a hash).

Specifically, Sudia, FIG. 1 performs:

$$R = H(R_1 + C_1 + ... + C_N)$$

which differs from the preceding iterative process in claims 1, 34, and 42.

The Examiner cites Sudia, col. 19, lines 57-67 which recites: "That document could in turn also be wrapped (either in its entirety, or as to its signature) under another set of conditions, giving rise to a chain of conditions that must be assented to in order to validate the wrapped signature on the first transaction. If the additional document were to contain a sequentially numbered value along with a random value, then the recipient's use of a series of wrapped data messages can be made contingent on obtaining a series of numbered documents from a third party. This has significant implications for the design of cryptographic transaction control systems."

Applicants respectfully contend that the preceding quote from Sudia, col. 19, lines 57-67 does not disclose the preceding claimed limitation of: the hashed concatenand $R_{n+1} = H(R_n + C_n)$ computed in iteration n becomes the reference condition R_{n+1} for the next iteration n+1 (n = 1, 2, ..., N).

Accordingly, Sudia does not disclose the preceding feature of claims 1, 34, and 42.

Based on the preceding arguments, Applicants respectfully maintain that claims 1, 34, and 42 are not unpatentable over Ishibashi and in view of Sudia, and that claims 1, 34, and 42 are in condition for allowance. Since claims 27-31 depend from claim 1, Applicants contend that claims 27-31 are likewise in condition for allowance. Since claims 35-39 depend from claim 34, Applicants contend that claims 35-39 are likewise in condition for allowance. Since claims 43-47

depend from claim 42, Applicants contend that claims 43-47 are likewise in condition for allowance.

CONCLUSION

Based on the preceding arguments, Applicants respectfully believe that all pending claims and the entire application meet the acceptance criteria for allowance and therefore request favorable action. If the Examiner believes that anything further would be helpful to place the application in better condition for allowance, Applicants invite the Examiner to contact Applicants' representative at the telephone number listed below. The Director is hereby authorized to charge and/or credit Deposit Account 09-0457 (IBM). The Attorney's reference number for this case is END-8109.

Date: April 19, 2010

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